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fifth, sixth, and seventh radiators in response to the received third amplifiable signal;  
 wherein each of the first, second, third, fourth, fifth, sixth, and seventh radiators radiates in one of a plurality of discrete, specified states; and  
 wherein the radiated states from the first, second, third, fourth, fifth, sixth, and seventh radiators combine through far-field electromagnetic propagation and effectively sum at the receiver to mimic transmission from a single amplifier.

2. The system of claim 1, wherein the first, second, third, fourth, fifth, sixth, and seventh radiators are the same in structure and function, and are oriented to radiate electromagnetic radiation in approximately the same direction.

3. The system of claim 1, wherein the first, second, third, fourth, fifth, sixth, and seventh radiators each comprise at least one antenna.

4. The system of claim 1, wherein the plurality of discrete, specified states have approximately the same amplitudes, and have phases that are approximately equally spaced apart.

5. The system of claim 1, wherein the first, second, third, fourth, fifth, sixth, and seventh amplifiers are all the same in structure and function, and operate in near saturation or full saturation.

6. The system of claim 1, wherein the first, second, and third amplifiable signals have approximately the same amplitude.

7. The system of claim 1,  
 wherein a combined output power of the second and third radiators is approximately twice an output power of the first radiator; and  
 wherein a combined output power of the fourth, fifth, sixth, and seventh radiators is approximately twice the combined output power of the second and third radiators.

8. The system of claim 1, further comprising an encoder that converts a stream of data into the synchronized first, second, and third phase-shift keying (PSK) signals.

9. The system of claim 8,  
 wherein the encoder uses quadrature phase-shift keying (4-PSK); and  
 wherein the quadrature amplitude modulation waveform is 64-QAM.

10. The system of claim 8,  
 wherein the encoder uses offset quadrature phase-shift keying (O-4-PSK); and  
 wherein the quadrature amplitude modulation waveform is offset 64-QAM.

11. The system of claim 10, wherein the O-4-PSK waveform is formed from low-pass-filtered, sinusoidal pulses.

12. A system for transmitting a quadrature amplitude modulation (QAM) waveform to a receiver, the system comprising:  
 first, second, third, and fourth mixers that combine synchronized first, second, third, and fourth phase-shift keying (PSK) signals with a common local oscillator signal to form respective first, second, third, and fourth amplifiable signals;  
 a first amplifier that receives the first amplifiable signal and powers a first radiator in response to the received first amplifiable signal;  
 second and third amplifiers that receive the second amplifiable signal and power respective second and third radiators in response to the received second amplifiable signal;  
 fourth, fifth, sixth, and seventh amplifiers that receive the third amplifiable signal and power respective fourth,

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fifth, sixth, and seventh radiators in response to the received third amplifiable signal; and  
 eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth amplifiers that receive the fourth amplifiable signal and power eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators in response to the received fourth amplifiable signal;  
 wherein each of the first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators radiates in one of a plurality of discrete, specified states; and  
 wherein the radiated states from the first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators combine through far-field electromagnetic propagation and effectively sum at the receiver to mimic transmission from a single amplifier.

13. The system of claim 12, wherein the first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators are all the same in structure and function, and are oriented to radiate electromagnetic radiation in approximately the same direction; and  
 wherein the first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators each comprise at least one antenna.

14. The system of claim 12, wherein the plurality of discrete, specified states have approximately the same amplitudes, and have phases that are approximately equally spaced apart.

15. The system of claim 12,  
 wherein the first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth amplifiers are all the same in structure and function, and operate in near saturation or full saturation; and  
 wherein the first, second, third, and fourth amplifiable signals have approximately the same amplitude.

16. The system of claim 12,  
 wherein a combined output power of the second and third radiators is approximately twice an output power of the first radiator;  
 wherein a combined output power of the fourth, fifth, sixth, and seventh radiators is approximately twice the combined output power of the second and third radiators; and  
 wherein a combined output power of the eighth, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth radiators is approximately twice the combined output power of the fourth, fifth, sixth, and seventh radiators.

17. The system of claim 12, further comprising an encoder that converts a stream of data into the synchronized first, second, third, and fourth phase-shift keying (PSK) signals.

18. The system of claim 17,  
 wherein the encoder uses quadrature phase-shift keying (4-PSK); and  
 wherein the quadrature amplitude modulation waveform is 256-QAM.

19. A method for transmitting a 64-QAM (quadrature amplitude modulation) waveform to a receiver, the method comprising:  
 converting a stream of data into synchronized first, second, and third quadrature phase-shift keying (4-PSK) signals;  
 combining the first, second, and third 4-PSK signals with a common local oscillator signal to form respective first, second, and third amplifiable signals;